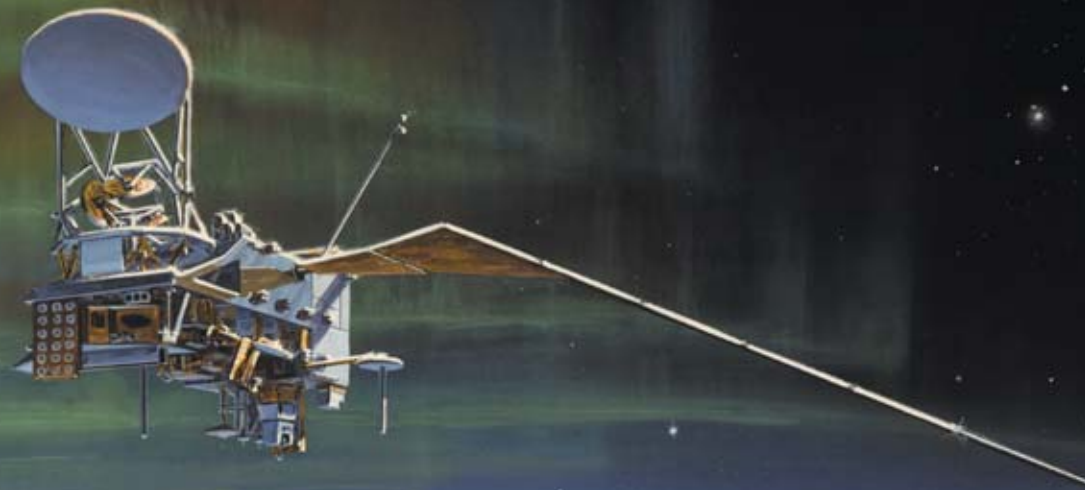


***NORTHROP GRUMMAN***

**Raytheon**



**NPOESS**

---

**NATIONAL POLAR-ORBITING OPERATIONAL ENVIRONMENTAL SATELLITE SYSTEM**

# NATIONAL POLAR-ORBITING OPERATIONAL ENVIRONMENTAL SATELLITE SYSTEM

## NPOESS

### Staying One Step Ahead of the Ever-changing Earth

Farmers. Forecasters. Fighter pilots. Fire fighters. Futures traders. All rely on accurate environmental data. All need short- and long-range predictions for crop management, civil disaster preparation, operational mission planning, rapid emergency response, anticipating and exploiting environmental conditions. Timely, accurate data that will help predict a severe storm, plan for a rising creek, and dispel the fog of war.

NPOESS, the nation's next-generation environmental monitoring satellite system, will serve civil, military and scientific communities with higher accuracy than available before. A constellation of polar-orbiting satellites will observe Earth from space, monitoring the entire planet and providing data for short- to long-range weather and climate forecast models. Advanced technology will provide an improved 3-D view of the atmosphere three to four times faster, both of which are major factors in weather prediction.

The knowledge obtained from NPOESS data will reduce the potential loss of human life and property and provide support for general aviation, agriculture, and maritime activities. Improved early warnings will help lessen the devastating effects of severe weather by allowing for improved disaster planning and response. For the military, NPOESS shifts the tactical and strategic focus from "coping" with weather to anticipating and exploiting the terrestrial, atmospheric and space environmental conditions.

### Deliver the Data – Now!

NPOESS will provide atmospheric, oceanographic, terrestrial and solar-geophysical data that will help improve short-term weather forecasts. An innovative ground system reduces data latency – the time between observation and delivery to users – by a factor of four over current systems. Users will be able to put the data to work immediately to produce faster, better forecasts – saving lives,

planning successful military campaigns, minimizing impacts to the national and local economies, affecting long-range policy decisions.

NPOESS will also continue the mission of collecting data for a vital portion of the Earth's climate record that will enhance capabilities to predict the Earth's environment and increase our understanding of the natural and man-made forces at work.

### Three Agencies, One Mission

The first-ever convergence of civilian and military environmental sensing requirements into a single national system, NPOESS combines separate and often duplicative capabilities. This merger achieves significant cost savings and exploits newly available technologies to benefit all user communities. The program is managed by the Integrated Program Office (IPO), which is a joint Department of Defense, Department of Commerce and NASA team.

Northrop Grumman Space Technology, the prime contractor, is responsible for overall system design and development, system engineering and integration, instrument acquisition and spacecraft assembly and test. Our teammate, Raytheon, provides the ground functions – command, control and communications, and mission data processing – and system engineering support.

The first NPOESS spacecraft will be available for launch in late 2009.



**NORTHROP GRUMMAN**